CLAIMS:

1. A method for improving crop growth, the method comprising the steps of:

   a) establishing the soil and climatic conditions where the crop is to be grown; and

   b) producing a blended fertiliser in response to the data established in step a).

2. A method for improving crop growth, the method comprising the steps of :

   a) establishing the soil and climatic conditions where the crop is to be grown;

   b) producing a blended fertilizer by:

      (i) industrially processing organic material biologically to form an activated sludge or a humus like material;

      (ii) removing water from the humus like material to form a synthetic humus;

      (iii) blending the synthetic humus with an inorganic fertilizer, the quantity and content of the inorganic fertilizer being dictated by the soil and climatic conditions established in step a), to produce a blended fertilizer having a suitable nutrient content for crop growth;

      (iv) forming the blended fertilizer into agglomerates that are suitable for transportation and large scale application as a fertilizer, and

   c) applying the agglomerates to the soil.

3. A method according to claim 2 and further including the steps of establishing at least the soil conditions after the agglomerates have been applied to the soil and repeating steps b) and c).

4. A method according to claim 2 or claim 3, wherein the nutrients are any one or more of carbon, nitrogen, phosphorous and potassium.

5. A method according to any one of claims 2 to 4, wherein the relative proportions of synthetic humus and inorganic fertilizer are such that the blended fertilizer includes a fast release form and a slow release form of a particular nutrient.

6. A method according to any one of claims 2 to 4, wherein the relative proportions of synthetic humus and inorganic fertilizer are such that the blended fertilizer has the required proportion of materials to adjust soil pH.

7. A method according to any one of claims 2 to 4, wherein the physical characteristics of the agglomerates are such that nutrients are released from the agglomerates at different rates.

8. A method according to claim 7, wherein the physical characteristics include any one or more of size, degree of compaction and presence of a binding agent.

9. A method according to any one of claims 2 to 8, and further including the step of combining the synthetic humus with a bulking material either before or during the step of forming the synthetic humus into agglomerates to produce a bulked fertilizer.

10. A method according to any one of claims 2 to 9 wherein the biological processing is by way of anerobic digestion.

11. A method according to any one of claims 2 to 10, wherein the step of removing water from the humus like material includes the step of partially oxidising the surface of the humus like material to make the material less hydrophilic.

12. A method for composing vegetative material such as green waste, the method including the step of adding at least one product which is derived from the anaerobic digestion of organic material, wherein such product may be humus, micro-organisms, water, nitrogenous nutrient or hot gas and is derived by carrying out the steps of the method according to any one of the preceding claims.

13. A method according to claim 12, and further including the step of combining the compost with the synthetic humus either before or during the step of forming the synthetic humus into agglomerates to produce a blended fertilizer.

14. A method for improving crop growth, the method comprising the steps of:

a) establishing the soil and climatic conditions where the crop is to be grown;

b) mixing a humus concentrate with one or more additives in response to the data established from step a), to produce a fertilizer;

c) applying the fertilizer to the soil.

15. A method according to claim 14, wherein said additive is a bulking material.

16. A method according to claim 14, wherein said additive is one or more plant nutrients.

17. A method for improving crop growth, the method comprising:

(a) analysing the soil on which the crop is to be grown;

(b) establishing the geographical location where the crop is to be grown and/or the climatic conditions at the geographic location at which the crop is to be grown;

(c) establishing what crop is to be grown on the soil and/or the nutrient requirements of the crop;

(d) entering the data obtained into a computer which also contains a database and a computer program, wherein the database contains information on at least one of:

the nutrient requirements of various crops, optionally both short and long term requirements;

the nutrient requirements of the soil, optionally both short and long term requirements;

the effect of climate on the nutrient requirements of various crops;

the effect of soil quality on the nutrient requirements of various crops;

the soil pH requirements of various crops;

the climatic conditions at various locations where crops might be grown;

the costs, chemical compositions and nutrient contents of various fertilizers;

the rates of release of nutrients in various fertilizers;

the effects of agglomerate form on rates of release of nutrients in various fertilizers;

the effects on soil pH of various fertilizers;

transport costs to various locations;

the availability and cost of bulking materials at various locations, and

the computer program is capable of retrieving information from the database to determine the nutrient requirements for the particular cropping situation and of calculating the blend of fertilizers required to form a combined fertilizer and the

application rate of combined fertilizer which is expected to provide the nutrient needs at the lowest cost;

(e) calculating the quantity of combined fertilizer to be manufactured and the selling price;

(f) optionally, the quantity and price of combined fertilizer is communicated to the potential customer (if any) for confirmation of an order and if the order is not confirmed the remaining steps are not performed; and

(g) producing said combined fertilizer as required.

18. A method for producing combined fertilizers, the method comprising:

(a) analysing the soil on which the crops are to be grown;

(b) establishing the geographical location where the crops are to be grown and/or the climatic conditions at the geographic location at which the crops are to be grown;

(c) establishing what crop is to be grown on the soil and/or the nutrient requirements of the crop;

(d) entering the data obtained into a computer which also contains a database and a computer program, wherein the database contains information on at least one of:

the nutrient requirements of various crops, optionally both short and long term requirements;

the nutrient requirements of the soil, optionally both short and long term requirements;

the effect of climate on the nutrient requirements of various crops;

the effect of soil quality on the nutrient requirements of various crops;

the soil pH requirements of various crops;

the climatic conditions at various locations where crops might be grown;

the costs, chemical compositions and nutrient contents of various fertilizers;

the rates of release of nutrients in various fertilizers;

the effects of agglomerate form on rates of release of nutrients in various fertilizers;

the effects on soil pH of various fertilizers;

transport costs to various locations;

the availability and cost of bulking materials at various locations, and

the computer program is capable of retrieving information from the database to determine the nutrient requirements for the particular cropping situation and of calculating the blend of fertilizers required to form a combined fertilizer and the application rate of combined fertilizer which is expected to provide the nutrient needs at the lowest cost;

(e) calculating the quantity of combined fertilizer to be manufactured and the selling price;

(f) optionally, the quantity and price of combined fertilizer is communicated to the potential customer (if any) for confirmation of an order and if the order is not confirmed the remaining steps are not performed;

(g) blending the required fertilizers in the proportions determined in step d) and the quantity determined in step e).

19. A method for producing a fertilizer containing organics, the method comprising the steps of:

a) industrially processing organic material biologically to form an activated sludge or a humus like material;

b) removing water from the humus like material to form a synthetic humus and a first intermediate water stream; and

c) forming the synthetic humus into agglomerates,

wherein the agglomerates are suitable for transportation and large scale application as a fertilizer.

20. A method according to claim 19, and further including the step of combining the synthetic humus with an inorganic fertilizer either before or during the step of forming the synthetic humus into agglomerates, to produce a blended fertilizer.

21. A method according to claim 20, wherein the relative proportions of synthetic humus and inorganic fertilizer are such that the blended fertilizer has a predetermined quantity of one or more nutrients.

22. A method according to claim 21, wherein the nutrients are any one or more of organic carbon, nitrogen, phosphorous and potassium.

23. A method according to claim 20, wherein the relative proportions of synthetic humus and inorganic fertilizer are such that the blended fertilizer includes a fast release form and a slow release form of a particular nutrient.

24. A method according to claim 20, wherein the relative proportions of synthetic humus and inorganic fertilizer are such that the blended fertilizer has the required proportion of materials to adjust soil pH.

25. A method according to any one of claims 19 to 24, wherein the physical characteristics of the agglomerates are such that the rate of release of nutrients from the agglomerates are suited to a particular crop, soil and/or growing condition.

26. A method according to any one of claims 19 to 24, wherein the physical characteristics of the agglomerates are such that nutrients are released from the agglomerates at different rates.

27. A method according to claim 25 or claim 26, wherein the physical characteristics include any one or more of size, degree of compaction and presence of a binding agent.

28. A method according to claim 19, and further including the step of combining the synthetic humus with a bulking material either before or during the step of forming the synthetic humus into agglomerates to produce a bulked fertilizer.

29. A method according to any one of claims 19 to 28, and further including the steps of:

d) separating the organic material into a sludge and a second intermediate water stream, the sludge being the input to step a);

e) separating the second intermediate water stream into a first aqueous stream of dissolved solids and a second aqueous stream of substantially clean water

wherein the first aqueous water stream is suitable for use as a liquid fertilizer.

30. A method according to claim 29, and further including the step of utilising the second aqueous stream during step a).

31. A method according to any one of claims 19 to 30, and further including the steps of:

f) burning gas produced during step a) to produce a carbon dioxide containing gas;

g) dissolving carbon dioxide from the carbon dioxide containing gas to form a carbonated liquor;

h) separating a carbonate concentrate from the carbonate liquor; and

i) combining at least some of the carbonate concentrate with the synthetic humus either before or during the step of forming the synthetic humus into agglomerates.

32. A method according to any one of claims 19 to 31, and further including the step of separating the first intermediate water stream into a third aqueous stream of dissolved solids and a fourth aqueous stream of substantially clean water wherein the third aqueous stream is suitable for use as liquid fertilizer.

33. A method according to claim 32, and further including the step of utilising the fourth aqueous water stream during step a).

34. A method according to any one of claims 19 to 33, wherein the step of removing water from the humus like material includes the step of adding a flocculant or a drainage aid to the humus like material.

35. A method according to any one of claims 19 to 34, wherein the step of removing water from the humus like material includes the step of partially oxidising the surface of the humus like material to make the material less hydrophilic.

36. A method for composing vegetative material such as green waste, the method including the step of adding at least one product which is derived from the anaerobic digestion of organic material, wherein such product may be humus, micro-organisms, water, nitrogenous nutrient or hot gas and is derived by carrying out the steps of the method according to any one of the preceding claims.

37. A method according to claim 36, and further including the step of combining the compost with the synthetic humus either before or during the step of forming the synthetic humus into agglomerates to produce a blended fertilizer.